

Amendments to the Drawings

The attached replacement sheets of drawings includes changes to FIGS. 3 and 8, and replaces the original sheets including FIGS. 3 and 8

In FIG. 3, reference character "206" has been amended to read "208".

In FIG. 8, reference character "206" has been amended to read "208".

Attachments following last page of this Amendment:

Replacement Sheets (2 pages)

Annotated Sheet Showing Changes (2 pages)

REMARKS

In view of the following remarks, reconsideration and allowance are respectfully requested.

Claims 1 and 4-7 are pending, with claims 1 and 6 being independent. Claims 1 and 4-7 have been amended, and claims 2 and 3 have been cancelled (with their subject matter being incorporated into claim 1). The specification and drawings also have been amended to correct minor errors. No new matter has been presented.

Drawings

The drawings were objected to because reference character "206" has been used to designate both a "right connection pipe" and a "binding steel member," and reference character "200" has been used to designate both a "PHC pipe" and a "connection bar." Accordingly, FIGS. 3 and 8 have been amended to designate the "binding steel member" as reference character "208." Also, the specification has been amended to designate the "connection bar" as reference character "220."

The drawings also have been objected to because reference characters "24" and "204" have both been used to designate a "left connection pipe," and reference characters "200" and "220" have both been used to designate a "connection bar." The specification has been amended to delete reference character "24" and replace it with reference character "204," and to replace reference character "200" with reference character "220" when referring to the "connection bar."

In addition, the drawings have been objected to because: (a) the connection pipes 204 and 206 appear to be grooves or channels and not pipes; (b) the Office has required that FIG. 8 needs phantom lines to illustrate that the fixing steel member 602 is located above sheath 252; and (c) in FIG. 9, the bolts 604 and 606 do not connect the fixing steel member 602 to any other structural element of the claimed apparatus.

The objection to the drawings for using the phrase "connection pipe" in the specification is being traversed, as the structure set forth in the specification and drawings may properly be referred to as a "pipe." Initially, the applicants are entitled to be their own lexicographer in

regards to the terms and any definitions used in the specification (MPEP 2111.01, 2173.05(a)), and, accordingly, there is not a requirement to amend the drawings or the specification to not recite a "connection pipe" as stated in the Office Action. Furthermore, even the definition of a pipe set forth in the Office Action does not foreclose there being an opening in the wall of "a hollow tube" or a "tubular or cylindrical object" as shown in the drawings. Also, the meaning of the term "connection pipe" is sufficiently clear in the specification, it is used throughout the specification, and it is shown in the context of the drawings. For at least these reasons, applicants ask that this objection to the drawings be withdrawn.

FIG. 8 has been amended to show the requested phantom lines. No new matter has been introduced.

The objection to FIG. 9 is being traversed. FIG. 9 satisfies the requirements for the drawings under 35 U.S.C. § 113, 37 C.F.R. § 1.81, and 37 C.F.R. § 1.84. There is no need to show the fixing member connecting to another structure element. Accordingly, applicants ask that the objection to FIG. 9 be withdrawn.

It is submitted that the drawings and the above amendments to the drawings and specification overcome the objections to the drawings, and it is requested that the objections to the drawings be withdrawn.

Specification

Amendments to the specification correspond with the amendments to the drawings. No new matter has been presented. The above-amendments to the drawings and specification fully address the objections to the specification, and it is respectfully submitted that the objection to the specification should be withdrawn.

Claim Rejections - 35 USC § 112

Claims 4 and 5 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. However, support and a description for the binding steel member is provided in FIG. 2 and paragraph [24] of the specification such that the

specification enables one skilled in the art to make and use the claimed subject matter without undue experimentation (*see e.g.*, specification: paragraph [24]; “The elongated binding steel members 208 are inserted between the left and right connection pipes 204 and 206, thereby preventing the left and right connection pipes 204 and 206 from coming out.”) Furthermore, in accessing enablement the Office did not apply the factors set forth in *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1998) (MPEP 706.03(c)). Accordingly, applicants respectfully request that the rejection be withdrawn.

Claim Rejections - 35 USC §§ 102 and 103

Claims 1 and 5 were rejected under 35 U.S.C. § 102 (b) as being anticipated by Holmes (U.S. Patent No. 942,142), and claims 2 and 3 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Holmes in view of Kaneko (Japanese Patent Publication No. JP6-240660). As noted above, the subject matter of claims 2 and 3 has been incorporated into claim 1.

Applicants request reconsideration and withdrawal of these rejections in view of the amendment of claim 1 to include the subject matter of claims 2 and 3, and because neither Holmes, Kaneko, nor any proper combination of the two describes or suggests that “each of the left and right connection pipes is in the form of a cylindrical pipe with a cut-away portion at a side thereof, and lateral sides of the cut-away portion are reinforced by a connection pipe-reinforcing material to reinforce the left and right connection pipes, wherein the left and right connection pipes are closely connected to each other by means of an elongated binding steel member to prevent the connection pipes from coming out from the PHC pile,” as now recited in claim 1.

Holmes describes reinforced concrete piles, where FIGS. 5 and 6 show piles made with longitudinal dove-tailed grooves 14 (the dove-tailed grooves 14 are referred to as the connection pipes in the Office Action) to receive dove-tailed tenons 15 on the ends of concrete bars 16 (the concrete bars 16 are referred to as the connection bar in the Office Action), which connect the piles to form a continuous wall (Holmes: page 1, line 112 to page 2, line 6). FIGS. 1 and 2 of Holmes show piles with a lowest section 1, upper sections 2, metal insert 3 for reinforcement,

where the upper sections 2 have central collars 10, which are connected to the sections 2 by means of arms 11 (the arms 11 are referred to as the elongated binding member in the Office Action) (Holmes: page 1, lines 37-76).

As acknowledged in the Office Action, Holmes fails to describe or suggest that “each of the left and right connection pipes is in the form of a **cylindrical pipe** with a cut-away portion at a side thereof, and lateral sides of the cut-away portion are reinforced by a connection pipe-reinforcing material to reinforce the left and right connection pipes, wherein the left and right connection pipes are closely connected to each other by means of an **elongated binding steel member** to prevent the connection pipes from coming out from the PHC pile,” as recited in claim 1.

Kaneko also fails to describe or suggest the “elongated binding steel member” recited in claim 1. As to this issue, the rejection merely notes that Kaneko teaches a retaining wall comprising cylindrical pipes, argues that it would have been obvious to modify the apparatus disclosed by Holmes with the cylindrical pipes of Kaneko, and takes official notice that it is well known to use metal support structures comprised of steel. Even assuming for sake of argument that all of this is correct, the rejection has not established that Kaneko in any way describes or suggests the elongated binding steel member recited in claim 1. Nor have applicants been able to discern any description or suggestion of such an elongated binding steel member in Kaneko. Moreover, the official notice with respect to the assertion that “it is well known in the art to use metal support structures comprised of steel” is being traversed to the extent that this official notice asserts that it would have been obvious to use the “elongated binding steel member” recited in claim 1. In particular, none of the references explicitly states how one skilled in the art could arrive at this conclusion and no documentary evidence has been provided by the Office to support this assertion. As stated in MPEP 2144.03, “Official Notice unsupported by documentary evidence should only be taken by the Examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known.” “It is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as the principal evidence

upon which a rejection was based.” See *Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697; *Ahlert*, 424 F.2d at 1092, 165 USPQ 421. (MPEP 2144.03) “If the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding.” See 37 CFR 1.104(d)(2) (MPEP 2144.03). No such factual statements and supporting explanations were provided in the Office Action, and the Official Notice in the suggested combination is improper. This burden has not been met by the Office for each of the rejected claims.

For at least these reasons, the rejections of independent claim 1 and dependent claim 5 should be withdrawn.

Dependent claim 4, which depends from claim 1, and independent 6 have been rejected under 35 U.S.C. § 103 (a) as being unpatentable over Holmes, Kaneko and Hiraga (Japanese Patent Publication No. JP4-306324). With respect to claim 4, applicants request reconsideration and withdrawal of this rejection because Hiraga, which is cited as teaching a corrosion-proof material, does not remedy the failure of Holmes and Kaneko to describe or suggest the subject matter of claim 1.

Like claim 1, claim 6 also recites “an elongated binding steel member.” Accordingly, applicants request reconsideration and withdrawal of the rejection of claim 6 for the reasons discussed above with respect to claim 1. as recited in claim 6.

Dependent claim 7, which depends from claim 6, has been rejected under 35 U.S.C. § 103 (a) as being unpatentable over Holmes, Kaneko, Hiraga and Bullivant (U.S. Patent No. 5,320,453). Applicants request reconsideration and withdrawal of this rejection because Bullivant, which is cited as teaching “the step of attaching fixing steel members to the tops of the right connection pipe of the first PHC pile and the left connection pipe of the second PHC pile into which the connection bar has been inserted,” does not remedy the failure of Holmes, Kaneko, and Hiraga to describe or suggest the subject matter of claim 6.

All claims are in condition for allowance.

Conclusion

It is believed that all of the pending issues have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this reply should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this reply, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

The fee in the amount of \$130 for a one month extension of time is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account Authorization. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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